Market Absorption of Apartments

ANNUAL 1993 ABSORPTIONS (Apartments Completed in 1992)

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SUMMARY

During 1992, a total of 110,200 privately financed, nonsubsidized, unfurnished, rental apartments in buildings of five units or more were completed in permit-issuing areas in the United States (table 1). This is a 33 (\pm 5) percent decrease from the 165,300 like completions in 1991 and a 49 (\pm 5) percent decrease from the 214,300 such units completed in 1990. The 1992 total is the lowest level of production of privately financed, nonsubsidized apartments in any year since 1982 when only 117,000 units were built, and is the second lowest total since this survey began publishing in 1970.

Compared to 1991, 1992 completions of unfurnished rental apartments stayed fairly level in the Midwest, but they decreased by 41 $(\pm$ 10) percent in the South and by 51 $(\pm$ 10) percent in the West. Completions in the Northeast are too low to make any reliable comparisons.

Seventy-four percent of the unfurnished rental apartments built in the United States in 1992 were absorbed (rented) within the first 3 months of completion, 91 percent within 6 months, 96 percent within 9 months, and 98

percent were rented within a year of completion. Ten percent of these units were built in the Northeast. They were 75 percent absorbed in their first 3 months on the market, and by the end of 12 months they were 98 percent absorbed. Approximately 31 percent of the total were built in the Midwest, and they had a 3-month absorption rate of about 80 percent and a 12-month rate of 99 percent. About 34 percent were built in the South with a 72 percent 3-month rate and a 98 percent 12-month rate. The 25 percent built in the West were about 70 percent absorbed in 3 months and 97 percent absorbed in 12 months. Three-month- and 12-month-absorption rates in the four regions and the nation as a whole were not statistically different from 1991.

Half (49 percent) of new apartments in 1992 were built in suburban areas, while 38 percent were built in the nation's central cities; the remaining 14 percent were built outside Metropolitan Areas (MAs). New apartments inside MAs were absorbed at about the same rate as those completed outside MAs after 3 months on the market.

Table 1. Absorption Rates for Unfurnished Apartments Completed, by Geographic Area: 1992

[Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. Data may not add to total due to rounding.]

Geographic areas	Total		Percent absorbed within				
Geographic areas	Number	Percent	3 months	6 months	9 months	12 months	
United States, total	110,200	100	74	91	96	98	
	95,200	86	75	90	96	98	
	41,500	38	78	91	95	98	
Not in central city Outside MA	53,700	49	73	90	96	97	
	15,000	14	73	93	98	100	
Northeast. Midwest. South. West.	10,900	10	75	91	97	98	
	34,000	31	80	92	97	99	
	37,400	34	72	91	96	98	
	28,000	25	70	87	94	97	

All statistics in this report are limited to apartments in newly constructed buildings with five units or more. Absorption rates are based on the first time an apartment offered for rent is rented after completion, or the first time a cooperative or condominium apartment is sold after completion. If apartments intended to be sold as cooperative or condominium units are offered by the builder or building owner for rent, they are counted as rental apartments.

Tables 1 through 4 are restricted to privately financed, nonsubsidized, unfurnished rental apartments. Table 5 is restricted to privately financed, nonsubsidized, cooperative and condominium apartments. Table 6 is restricted to privately financed, nonsubsidized condominium apartments only. Table 7 is restricted to privately financed, nonsubsidized, furnished, rental apartments. Table 8 is an historical summary table which includes all newly constructed apartments in buildings with five units or more.

All statistics in this report are based on a sample survey and consequently they are subject to sampling variability.1 Estimates derived from different samples would differ from one another. The standard error of a survey estimate is a measure of the variation among the estimates from all possible samples. Estimates of standard errors can be calculated by using tables A and B. They allow us to construct interval estimates with prescribed confidence that the interval includes the average of the estimates from all possible samples. For all the change statements made in this report, 90-percent confidence intervals for statistical comparisons can be constructed by using the 90-percent deviate shown in parentheses after the change; however, when a 90-percent confidence interval contains zero, we are uncertain whether or not the change has occurred. In addition, some of the statistical findings which are not part of the tables are also provided with a 90-percent deviate.

The median asking rent for unfurnished apartments completed in 1992 was \$586 (table 2). About 44 percent rented for less than \$550 and were absorbed at a 3-month rate of 79 (\pm 5) percent and a 12-month rate of 99 percent. The units with asking rents of \$550 to \$749, about 30 percent of the total, were 70 (\pm 7) percent absorbed in 3 months and 98 percent absorbed in 12 months. The 27 percent of the 1992 completions with an asking rent of \$750 or more were 71 percent and 97 percent absorbed in 3 and 12 months respectively.

One- and two-bedroom apartments accounted for 88 percent of all new rental-apartment completions (table 3). One-bedroom apartments had a median asking rent of \$544 and two-bedroom units rented for a median of \$588. These one- and two-bedroom apartments were absorbed at a 3-month rate of about 74, not significantly different from efficiency apartments or the three-or-more-bedroom apartments which were absorbed at 3-month rates of 68 and 75 percent respectively.

About 31,100 cooperative and condominium apartments were completed in 1992 (table 5). This is not statistically

different from the 35,300 such completions in 1991. Cooperative and condominium apartments were absorbed in 3 months at a rate of 68 percent and by the end of 12 months on the market 90 percent were sold.

The median asking price for all condominium apartments built in 1992 was \$118,400, 14 (\pm 12 percent) lower than the \$137,600 (adjusted for inflation) median in 1991 (table 6). Ninety percent of all new condominiums were built with two bedrooms or more.

Completions of apartments in all residential buildings with five units or more decreased by about 28 $(\pm\,7)$ percent from 1991 to 1992 (table 8). Seventy-one percent of 1992 completions were nonsubsidized, unfurnished, rental apartments, 20 percent were cooperatives and condominiums. Less than one half of 1 percent were furnished rental units.

About 5 percent of all apartments built in 1992 were in federally subsidized properties. These units are built under the following programs of the Department of Housing and Urban Development: Low Income Housing Assistance (Section 8), Senior Citizens Housing Direct Loans (Section 202), and all units in buildings containing apartments in the FHA rent supplement program. The data on privately financed units include privately owned housing subsidized by State and local governments.

An additional 4 percent of all newly constructed units are not in the scope of the survey for the purpose of measuring absorption rates or characteristics and include time-sharing units, continuing care retirement units, and turnkey units (privately built for and sold to local public housing authorities subsequent to completion).

NOTE TO DATA USERS

The Survey of Market Absorption (SOMA) adopted new ratio estimation procedures in 1990 to derive more accurate estimates of completions (see section on ESTIMATION). This new procedure was used for the first time for the processing of annual data for 1990. Caution must be used when making comparisons using data for completions in 1990 and later to years prior to 1990.

SAMPLE DESIGN

The Survey of Market Absorption (SOMA) is designed to provide data concerning the rate at which unfurnished, nonsubsidized, privately financed units in buildings with five or more units are rented or sold (absorbed). In addition, data on characteristics of the units, such as rent or price and number of bedrooms, are collected.

The buildings selected for SOMA are those included in the Census Bureau's Survey of Construction (SOC).² For SOC, the United States is first divided into primary sampling units (PSU's) which are sampled on the basis of

¹See Reliability of Estimates on page 3.

²See the January issue of "Housing Starts," Construction Reports, Series C20, for details of this survey.

population and permits. Next, a sample of permit-issuing places is selected within each sample PSU. Finally, all buildings with five units or more within sampled places, as well as a subsample of buildings with one to four units, are selected.

Each quarter, a sample of buildings with five units or more in the SOC sample reported as completed during that quarter come into sample for SOMA. Buildings completed in nonpermit-issuing areas are excluded from consideration. Information on the proportion of units absorbed 3, 6, 9, and 12 months after completion is obtained for units in buildings selected in a given quarter in each of the next four quarters.

ESTIMATION

Beginning with the fourth quarter of 1990 completions data (the first quarter of 1991 absorptions), the estimation procedure was modified. The modified estimation procedure was also applied to the first, second, and third quarters of 1990 completions data so that 1990 annual estimates could be derived using the same methodology for four quarters. No additional re-estimation of the past data is planned.

Prior to this change in the estimation procedure, unbiased quarterly estimates were formed by multiplying the counts for each building by its base weight (the inverse of its probability of selection) and then summing over all buildings. The final estimate was then obtained by multiplying the unbiased estimate by the following ratio estimate factor for the Nation as a whole:

total units in 5+ buildings in permit-issuing areas as estimated by SOC for that quarter

total units in 5+ buildings as estimated by SOMA for that quarter

For the modified estimation procedure, instead of applying a single ratio-estimate factor for the entire nation, separate ratio-estimate factors shown as above are computed for each of the four Census regions. The final estimates for regions are obtained by multiplying the unbiased regional estimates by the corresponding ratio estimate factors. The final national estimate is obtained by summing the final regional estimates.

This procedure produces estimates of the units completed in a given quarter which are consistent with unpublished figures from the SOC and also reduces, to some extent, the sampling variability of the estimates of totals. Annual estimates are obtained by computing a weighted average of the four quarterly estimates.

It is assumed that the absorption rates and other characteristics of units not included in the interviewed group or not accounted for are identical to rates for units where data were obtained. The noninterviewed and not-accounted-for cases constitute less than 2 percent of the sample housing units in this survey.

RELIABILITY OF THE ESTIMATES

There are two types of possible errors associated with data from sample surveys: sampling and nonsampling errors. The following is a description of the sampling and nonsampling errors associated with SOMA.

Nonsampling Errors

In general, nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data. These nonsampling errors also occur in complete censuses. Although no direct measurements of the biases have been obtained, it is believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

Sampling Errors

The particular sample used for this survey is one of a large number of possible samples of the same size that could have been selected using the same sample design. Even if the same questionnaires, instructions, and interviewers were used, estimates from each of the different samples would differ from each other. The deviation of a sample estimate from the average of all possible samples is defined as the sampling error. The standard error of a survey estimate attempts to provide a measure of this variation among the estimates from the possible samples and, thus, is a measure of the precision with which an estimate from a sample approximates the average result of all possible samples.

As calculated for this survey, the standard error also partially measures the variation in the estimates due to response and interviewer errors (nonsampling errors), but it does not measure, as such, any systematic biases in the data. Therefore, the accuracy of the estimates depends on both the sampling and nonsampling error measured by the standard error, biases, and some additional nonsampling errors not measured by the standard error. The sample estimate and its estimated standard error enable the user to construct confidence intervals, ranges that would include the average result of all possible samples with a known probability. For example, if all possible samples were selected, each of these were surveyed under essentially the same general conditions, and an estimate and its estimated standard error were calculated from each sample. then:

 Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate (i.e., 68-percent confidence interval) would include the average result of all possible samples.

- Approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate (i.e., 90-percent confidence interval) would include the average result of all possible samples.
- Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate (i.e., 95-percent confidence interval) would include the average result of all possible samples.

For very small estimates, the lower limit of the confidence level may be negative. In this case, a better approximation to the true interval estimate can be achieved by restricting the interval estimate to positive values, that is, by changing the lower limit of the interval estimate to zero.

The average result of all possible samples may be contained in any particular computed interval. However, for a particular sample, one can say with specified confidence that the average result of all possible samples is included in the constructed interval.

The conclusions stated in this report are considered significant at the 90-percent confidence level.

The reliability of an estimated absorption rate (i.e., a percentage) computed by using sample data for both the numerator and denominator depends upon both the size of the rate and the size of the total on which the rate is based. Estimated rates of this kind are relatively more reliable than the corresponding estimates of the numerators of the rates, particularly if the rates are 50 percent or more.

The figures presented in tables A and B are approximations to the standard errors of various estimates shown in the report. Table A presents standard errors for estimated totals, and table B presents standard errors of estimated percents. In order to derive standard errors that would be applicable to a wide variety of items and could be prepared at a moderate cost, a number of approximations were required. As a result, the tables of standard errors provide an indication of the order of magnitude of the standard errors rather than the precise standard error for any specific item. Standard errors for values not shown in tables A or B can be obtained by linear interpolation.

ILLUSTRATIVE USE OF STANDARD ERROR TABLES

Table 2 of this report shows that 21,200 units completed in 1992 rented for \$550 to \$649. Table A-1 shows the

standard error of an estimate of this size to be approximately 2,480. To obtain a 90-percent confidence interval, multiply 1,480 by 1.6 and add and subtract the result from 21,200 yielding limits of 17,230 and 25,170. The average estimate of units completed in 1992 renting for \$550 to \$649 may or may not be included in this computed interval, but one can say that the average is included in the constructed interval with a specified confidence of 90 percent.

Table 2 also shows that the rate of absorption after 3 months for these units is 71 percent. Table B-1 shows the standard error on a 71 percent rate on a base of 21,200 to be approximately 5.3 percent. Multiply 5.3 by 1.6 (yielding 8.5) and add and subtract the result from 71. The 90-percent confidence interval for the absorption rate of 71 percent is from 62.5 to 79.5.

Table 2 also shows that the median asking rent in the Midwest for unfurnished rental apartments was \$528. The standard error of this median is about \$14. This estimate is obtained by using the following approximation:

[length of interval containing the sample median] [standard error of median] = σ 50% x ______

[estimated proportion of the base falling within the interval containing the sample median]

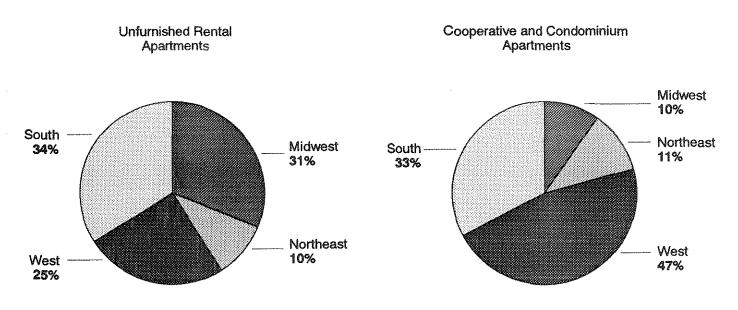
where σ 50% is the estimated standard error of the 50-percent characteristic on the base of the median. In this example, the estimated median, \$528, lies between \$450 and \$549. The length of the interval is \$100. The estimated proportion of the base (total units completed) of 34,000 falling within this rent class is about 34 percent. Table B-1 shows the estimated error of a 50-percent characteristic with the base of 34,000 to be about 4.6 percent. Hence, the standard error of the sample median from the above formula is:

$$4.6 \times \frac{100}{34} = $14$$

Therefore, 1.6 standard errors equals \$22. This means that an approximate 90-percent confidence interval for the median asking rent of \$528 would be between \$506 and \$550 (\$528 plus or minus \$22).

Figure 1.

Percent Distribution of New Unfurnished Rental and New Cooperative and Condominium Units Completed, by Region: 1992



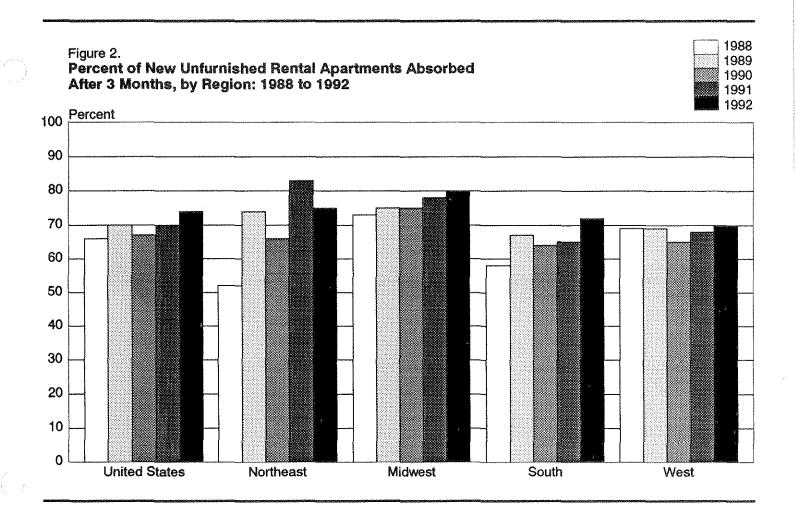


Table 2. Absorption Rates for Unfurnished Apartments Completed, by Rent, for the United States and Regions: 1992

[Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. Data regarding asking rent are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.]

l.	Total			Percent absorbe	ed within—	
ltem -	Number	Percent	3 months	6 months	9 months	12 months
Total	110,200	100	74	91	96	98
Less than \$350	10,500	10	84	95	99	99
\$350 to \$449	13,100	12	70	90	97	99
\$450 to \$549	23,900	22	83	94	97	99
\$550 to \$649	21,200	19	71	91	97	98
\$650 to \$749	12,300	11	68	86	94	97
\$750 or more	29,300	27	71	88	94	97
Median asking rent	\$586	(X)	(X)	(X)	(X)	(X)
Northeast	10,900	100	75	91	97	98
Less than \$350	2,900	27	84	92	100	100
\$350 to \$449	1,900	18	68	95	99	100
\$450 to \$549	300	3	30	61	95	98
\$550 to \$649	200	2	92	94	95	95
\$650 to \$749	300	3	62	95	98	100
\$750 or more	5,300	48	74	90	95	96
Median asking rent	\$696	(X)	(X)	(X)	(X)	(X)
Midwest	34,000	100	80	92	97	99
Less than \$350	2,000	6	94	98]	99	100
\$350 to \$449	5,900	18	70	88	97	99
\$450 to \$549	11,500	34	90	96	98	99
\$550 to \$649	8,600	25	74	94	98	99
\$650 to \$749	2,900	9	75	83	93	98
\$750 or more	3,000	9	78	88	93	98
Median asking rent	\$528	(X)	(X)	(X)	(X)	(X)
South	37,400	100	72	91	96	98
Less than \$350	4,100	11	74	95	98	98
\$350 to \$449	3,700	10	68	94	97	99
\$450 to \$549	7,100	19	78	95	99 }	100
\$550 to \$649	6,900	18	70	91	96	99
\$650 to \$749	4,900	13	66	88	95	97
\$750 or more	10,700	29	73	89	95	97
Median asking rent	\$604	(X)	(X)	(X)	(X)	(X
West	28,000	100	70	87	94	97
Less than \$350	1,500	5	99	99	100	100
\$350 to \$449	1,500	5	72	88	97	100
\$450 to \$549	5,000	18	75	90	94	96
\$550 to \$649	5,500	20	68	86	94	96
\$650 to \$749	4,100	15	67	85	93	96
\$750 or more	10,400	37	65	85	94	97
Median asking rent	\$661	(X)	(X)	(X)	(X)]	(X

X Not applicable.

Table 3. Absorption Rates for Unfurnished Apartments Completed, by Number of Bedrooms and Rent, for the United States: 1992

Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. Data regarding number of bedrooms and asking rent are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.)

ltem .		al	Percent absorbed within			
	Number	Percent	3 months	6 months	9 months	12 months
Total	110,200	100	74	91	96	98
Less than \$350	10,500	10	84	95	99	99
	13,100	12	70	90	97	99
\$450 to \$549	23,900	22	83	94	97	99
	21,200	19	71	91	97	98
	12,300	11	68	86	94	97
\$750 or more	29,300	27	71	88	94	97
	\$586	(X)	(X)	(X)	(X)	(X)
No Bedroom	2,200	100	68	85	94	95
	700	32	97	99	100	100
	200	7	28	66	90	100
\$450 to \$549\$550 to \$649\$650 to \$749	300	16	39	98	100	100
	100	5	70	85	92	96
	200	8	83	89	90	92
\$750 or more	700	32	57	70	86	87
	\$515	(X)	(X)	(X)	(X)	(X)
1 Bedroom Less than \$350 \$350 to \$449 \$450 to \$549 \$550 to \$649 \$650 to \$749 \$750 or more Median asking rent	37,200 7,100 4,700 7,100 5,800 4,100 8,400 \$544	100 19 13 19 16 11 23 (X)	67	90 94 93 93 89 84 88 (X)	96 98 96 96 94 93 (X)	98 99 97 97 99 98 96 (X)
2 Bedrooms Less than \$350 \$350 to \$449 \$450 to \$549 \$550 to \$649 \$650 to \$749 \$750 to \$849 \$850 or more Median asking rent	59,800 2,300 7,000 15,600 13,100 6,800 5,300 9,700 \$588	100 4 12 26 22 11 9 16 (X)	77 67 83 70 66 70 72	91 96 93 95 91 87 88 88 (X)	96 10 98 98 97 94 95 (X)	98 100 100 99 98 97 98 97 (X)
3 Bedrooms or more. Less than \$350 \$350 to \$449 \$450 to \$549 \$550 to \$649 \$650 to \$749 \$750 to \$849 \$850 or more	11,100 400 1,200 900 2,200 1,200 2,300 2,900	100 3 11 8 20 11	97 48 70 86 79 84	88 97 89 95	96 100 100 100 99 92 98 92	99 100 100 100 100 96 100

X Not applicable.

Table 4. Absorption Rates for Unfurnished Apartments Completed, by Presence of Selected Features and Utilities, for the United States: 1992

[Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. Data regarding features and utilities are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding.]

lan-	Total		Percent absorbed within—			
ltem	Number	Percent	3 months	6 months	9 months	12 months
Total	110,200	100	74	91	96	98
SELECTED FEATURES						
Swimming pool Available Included in rent At extra cost Not available	55,900 1,100 53,300	51 1 48	72 80 76	89 92 92	95 97 97	97 99 99
Parking Available Included in rent At extra cost Not available	105,700 3,600 1,000	96 3 1	74 86 64	90 95 76	96 97 88	98 99 94
Air-conditioning Available Not available	99,200 11,000	90	74 76	90 92	96 98	98 99
Dishwasher Available Not available	95,500 14,700	87 13	75 73	91 90	96 95	98 '96
UTILITIES						
Electricity Included in rent At extra cost.	5,000 105,200	5 95	50 76	67 92	81 97	88 99
Gas Available Included in rent At extra cost Not available	15,500 46,800 48,000	14 42 43	77 72 76	90 89 92	94 95 97	97 98 99

X Not applicable.

Table 5. Absorption Rates for Cooperative and Condominium Apartments Completed, by Number of Bedrooms and Geographic Area: 1992

Privately financed, nonsubsidized apartments in buildings with five units or more. Data regarding number of bedrooms are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding.]

thouse	То	tal	Percent absorbed within				
Item	Number	Percent	3 months	6 months	9 months	12 months	
Total	31,100	100	68	81	87	90	
BEDROOMS							
No bedroom 1 bedroom 2 bedrooms 3 bedrooms or more	500 3,000 22,500 5,100	2 10 72 17	32 53 71 69	41 64 83 87	47 69 89 91	48 75 92 94	
REGION							
Northeast. Midwest South West.	3,300 3,000 10,100 14,700	11 10 33 47	50 82 76 64	57 93 92 77	66 96 95 84	68 98 97 88	
AREA							
Inside MA	24,700 12,200 12,400 6,500	79 39 40 21	68 61 75 71	80 73 86 87	86 80 92 91	89 84 94 93	

Table 6. Absorption Rates for Condominium Apartments Completed, by Asking Price, Number of Bedrooms, and Geographic Area: 1992

[Privately financed, nonsubsidized apartments in buildings with five units or more. Data regarding number of bedrooms and asking price are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.]

D	Tota	l	Percent absorbed within—				
ltem .	Number	Percent	3 months	6 months	9 months	12 months	
Total	30,600	100	69	82	87	90	
PRICE CLASS							
Less than \$50,000. \$50,000 to \$74,999 \$75,000 to \$99,999 \$100,000 to \$149,999. \$150,000 to \$199,999 \$200,000 or more Median asking price	500 5,600 5,600 9,700 4,400 4,700 \$118,400	2 18 18 32 15 16 (X)	95 80 77 70 58 51 (X)	95 92 83 71 60	98 98 95 91 79 65 (X)	100 99 96 94 84 69 (X)	
BEDROOMS	, , , , ,	(-1	(**)		(**)	(**)	
No bedroom	500 2,700 22,300 5,100	2 9 73 17	32 56 71 69	66 83	45 73 89 91	46 77 92 94	
REGION							
Northeast	3,200 3,000 9,800 14,600	10 10 32 48	50 82 78 64	93 93	66 96 97 84	68 98 98 88	
AREA							
Inside MA	24,100 12,000 12,100 6,500	79 39 40 21	68 61 76 71	73 88	86 80 93 91	90 84 95 93	

X Not applicable.

Table 7. Absorption Rates for Furnished Apartments Completed, by Rent and Number of Bedrooms, for the United States: 1992

[Privately financed, nonsubsidized, furnished, rental apartments in buildings with five units or more. Data regarding number of bedrooms and asking rent are collected at the initial interview, i.e, 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.]

Nove	Total		Percent absorbed within-			
Item	Number	Percent	3 months	6 months	9 months	12 months
Total	700	100	95	99	100	100
RENT CLASS						
Less than \$350 \$350 to \$449 \$450 to \$549 \$550 to \$649 \$650 to \$749 \$750 or more Median asking price	(Z) (2) 100 (Z) (Z) (Z) 500 \$750+	(Z) (Z) 12 (Z) (Z) 73 (X)	(X) (X) 95 (X) (X) 95 (X)	(X) (X) 100 (X) (X) (X) 99 (X)	(X) (X) 100 (X) (X) 100 (X)	(X) (X) 100 (X) (X) 100 (X)
BEDROOMS				24 FOREIGNETT 14		
No bedroom. 1 bedrooms. 2 bedrooms. 3 bedrooms or more.	100 (Z) 100 500	8 (Z) 20 68	87 (X) 100 94	100 (X) 100 99	100 (X) 100 100	100 (X) 100 100

X Not applicable.

Table 8. Apartments Completed in Buildings With Five Units or More: 1970 to 1992

Data may not add to total due to rounding

Year		Unfurn apartn		Furni apartn	- 1	Cooper an condom	d	Fede subsid		Oth	ier ¹
	Total	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1992	155,200	110,200	71	700	(Z)	31,100	20	7,000	5	6,000	4
1991	216,500	165,300	76	2,800	1	35,300	16	9,600	4	3,500	2
1990	294,400	214,300	73	2,900	1	52,600	18	13,800	5	10,800	4
1989	337,900	246,400	73	4,900	1	59,700	18	19,800	6	7,200	2
1988	388,600	284,500	73	4,300	1	76,200	20	15,200	4	8,400	2
1987	474,200	345,600	73	7,900	2	92,300	19	17,000	4	11,300	2
1986	550,200	407,600	74	11,600	2	101,700	18	23,300	4	6,000	1
1985	533,300	364,500	68	7,400	1	135,800	25	12,000	2	13,700	3
1984	506,000	313,200	62	9,800	2	143,600	28	28,500	6	10,700	2
1983	370,700	191,500	52	4,700	1	111,800	30	47,700	13	15,100	4
1982	288,200	117,000	41	5,400	2	107,900	37	48,000	17	10,000	3
1981	332,500	135,400	41	6,000	2	112,600	34	66,100	20	12,500	4
1980	418,900	196,100	47	9,700	2	122,800	29	79,900	19	10,500	3
1979	439,300	241,200	55	12,100	3	91,800	21	87,500	20	6,700	2
1978		228,700	63	11,200	3	54,500	15	54,100	15	14,300	4
1977	289,400	195,600	68	16,200	6	43,000	15	26,000	9	8,700	3
1976	258,200	157,000	61	12,800	5	46,300		32,000	12	10,000	4
1975	371,400	223,100	60	11,100	3	84,600	23	38,900	.10	13,800	4
1974		405,500	59	20,700	3	159,000		75,400	11	25,000	4
1973	774,800	531,700	69	36,200	5	98,100		82,000	11	26,800	3
1972	718,200	497,900	69	37,700	5	57,300		93,800	13	31,400	4
1971		334,400	57	32,200	6	49,100		104,800	18	63,000	11
1970	526,000	328,400	62	48,200	9	72,500	14	55,900	11	21,000	4

¹Other includes time-sharing units, continuing-care retirement units, and turnkey units (privately built for and sold to local public housing authorities subsequent to completion). PZ Fewer than 50 units or less than one half of one percent.

Table A-1. Standard Errors of Estimated Totals: Completions in 1986 to 1992

[2 chances out of 3]

Estimated total	Standard error	Estimated total	Standard error
1,000		35,000	
2,000 3,000		50,000	
4,000	1,100	100,000	5,400
5,000	1,200	150,000	6,600
10,000		250,000	
15,000		350,000	
20,000 25,000		450,000 600,000	

Note: See page 4 for information on the use of this table.

Table B-1. Standard Errors of Estimated Percentages: Completions in 1986 to 1992

[2 chances out of 3]

Base of percentage	98 or 2	95 or 5	90 or 10	80 or 20	75 or 25	60 or 40	50
1,000	7.5	11.7	16.1	21.5	23.3	26.3	26.9
2,000	5.3	8.3	11.4	15.2	16.5	18.6	19.0
3,000	4.3	6.8	9.3	12.4	13.4	15.2	15.5
4,000	3.8	5.9	8.1	10.8	11.6	13.2	13.4
5,000	3.4	5.2	7.2	9.6	10.4	11.8	12.0
10,000	2.4	3.7	5.1	6.8	7.4	8.3	8.5
15,000	1.9	3.0	4.2	5.6	6.0	6.8	6.9
20,000	1.7	2.6	3.6	4.8	5.2	5.9	6.0
25,000	1.5	2.3	3.2	4.3	4.7	5.3	5.4
35,000	1.3	2.0	2.7	3.6	3.9	4.5	4.
50,000	1.1	1.7	2.3	3.0	3.3	3.7	3.8
75,000	0.9	1.4	1.9	2.5	2.7	3.0	3.1
100,000	0.8	1.2	1.6	2.2	2.3	2.6	2.7
150,000	0.6	1.0	1.3	1.8	1.9	2.2	2.2
250,000	0.5	0.7	1.0	1.4	1.5	1.7	1.7
350,000	0.4	0.6	0.9	1.1	1.2	1.4	1.4
450,000	0.4	0.6	8.0	1.0	1.1	1.2	1.3
600,000	0.3	0.5	0.7	0.9	1.0	1.1	1.1

Note: See page 4 for information on the use of this table.

Table A-2. Standard Errors of Estimated Totals: Completions in 1985

chances out of 3]

Estimated total	Standard error	Estimated total	Standard error
5,000 10,000 15,000 20,000 25,000 35,000 50,000	2,030 2,500 2,880 3,240 3,830	75,000 100,000 150,000 250,000 350,000 450,000 600,000	6,650 8,310 11,110 13,590 15,890

Note: See page 4 for information on the use of this table.

Table B-2. Standard Errors of Estimated Percentages: Completions in 1985

[2 chances out of 3]

Base of percentage	98 or 2	95 or 5	90 or 10	80 or 20	75 or 25	50
5,000	4.0	6.3	8.5	11.4	12.4	14.3
10,000	2.9	4.3	6.1	8.1	8.7	10.0
15,000	2.3	3.5	5.0	6.6	7.1	8.2
20,000	1.9	3.1	4.3	5.8	6.1	7.1
25,000	1.8	2.7	3.9	5.2	5.5	6.4
35,000	1.5	2.4	3.2	4.3	4.7	5,5
50,000	1.3	1.9	2.7	3.5	3.9	4.5
75,000	1.0	1.6	2.3	2.9	3.2	3.7
100,000	1.0	1.5	1.9	2.6	2.7	3.2
. 150,000	8.0	1.1	1.6	2.1	2.3	2.6
50,000	0.6	8,0	1.3	1.6	1.8	2.1
350,000	0.5	8.0	1.0	1.3	1.5	1.8
450,000	0.5	0.6	1.0	1.1	1.3	1.5
600,000	0.3	0.6	8.0	1.0	1.1	1,3

Note: See page 4 for information on the use of this table.

Table A-3. Standard Errors of Estimated Totals: Completions in 1970 to 1984

[2 chances out of 3]

Estimated total	Standard error	Estimated total	Standard error	
5,000 10,000 15,000 20,000 25,000 35,000 50,000	1,500 1,840 2,130 2,390 2,830	75,000 100,000 150,000 250,000 350,000 450,000 600,000	4,910 6,140 8,210 10,040 11,750	

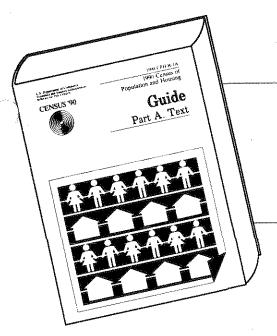
Note: See page 4 for information on the use of this table.

Table B-3. Standard Errors of Estimated Percentages: Completions in 1970 to 1984

(2 chances out of 3]

Base of percentage	98 or 2	95 or 5	90 ar 10	80 or 20	75 or 25	- 50
5,000	3.0	4.6	6.3	8.4	9.2	10.6
10,000	2.1	3.2	4.5	6.0	6.4	7.4
15,000		2.6	3.7	4.9	5.2	6.1
20,000	1.4	2.2	3.2	4.3	4.5	5.2
25,000		2.0	2.9	3.8	4.0	4.8
35,000	1.1	1.8	2.4	3.2	3.5	4.0
50,000	1.0	1.4	2.0	2.6	2.9	3.3
75,000	0.7	1.2	1.7	2.1	2.4	2.7
100,000	0.7	1.1	1.4	1.9	2.0	2:4
150,000	0.6	0.8	1.2	1.5	1.7	1.9
250,000	0.5	0.6	1.0	1.2	1.3	1.5
350,000		0.6	0.7	1.0	1.1	1.3
450,000		0.5	0.7	0.8	1.0	1.1
600,000	0.2	0.5	0.6	0.7	8.0	0.8

Note: See page 4 for information on the use of this table.



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